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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

February 12, 2013

TO: Internal File

THRU: Daron Haddock, Program Manager

FROM: Steve Christensen, Environmental Scientist SLC

RE: Response to DO-12B, Headwaters Energy Services Corporation, Covol Engineered Fuels, C0070045 (Task ID #4250)

SUMMARY:

On January 25th, 2013, the Division of Oil, Gas and Mining (the Division) received an amendment to the Covol Wellington Dry Coal Cleaning facility (Covol facility) mining and reclamation plan (MRP). The amendment was submitted by Covol Engineered Fuels, LC (the Permittee) in response to Division Order DO-12B (DO-12B).

DO-12B was issued on November 27th, 2012 as a result of a field inspection conducted by Division staff on November 7th, 2012. During the inspection, issues were identified relative to the sediment controls on the west side of the permit area at the Covol facility. The Division found that sediment controls had not been adequately designed, constructed or maintained in this area. The Permittee was thus directed by DO-12B to revise the MRP to reflect additional sediment control measures to be implemented at the Covol facility.

The following memo is a technical analysis of the sediment control measures relative to the hydrology requirements of the State of Utah R645-Coal Mining Rules.

The amendment should not be approved at this time. The following deficiencies must be addressed prior to final approval:

R645-301-741, -742: The Permittee must provide the following additional information/clarification in the amendment prior to final approval:

1) Provide typical cross-sections for both the berm and the fiber rolls as depicted on Plate 7-2. The cross-sections are necessary in order for Division Inspectors to evaluate whether they were installed correctly as well as determine if they are being adequately maintained over time.
2) Revise page 7-24 of the amendment with additional discussion/narrative as to the utilization of the berms within ASCA-1.
3) Revise the calculations in Appendix 7-9 for ASCA 2 with an "*area of elevation*" value of 5,508'. The submitted calculations call out an elevation of 5,908'.

TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Sediment Control Measures

The amendment does not meet the requirements of the State of Utah R645 Coal Mining Rules.

In order to fulfill the requirements of DO-12B, the Permittee proposes the utilization of two alternative sediment control areas (ASCA-1 and ASCA-2). ASCA 1 is the larger of the two areas (2.38 acres) compared to ASCA 2 (0.12 acres). Plate 7-2, *Site Watershed and Drainage Map Wellington Dry Coal Cleaning Facility* (Plate 7-2), depicts the locations of the two ASCA areas on the western most extent of the permit area.

ASCA 1 is comprised of a berm and fiber roll (See Plate 7-2). ASCA 2 proposes the use of fiber rolls alone provide sediment control. On page 7-24, the Permittee provides a discussion of the proposed sediment control measures. The design calculations are provided in Appendix 7-9. The Permittee indicates that the fiber rolls "*will be installed in accordance with manufacturer's instructions.*"

The Permittee utilized the Soil Conservation Service Method (SCS method) to determine the amount of storm flow runoff depth (inches). The runoff depth was then multiplied by the area of the ASCA's to calculate the total runoff volume generated on the ASCA areas that required sediment control measuresBased upon the topography shown on Plate 7-2, storm runoff will flow to the south-west. Storm runoff in the northern most portions of the ASCA areas (ASCA 1) will flow to the south-west, encounter the berm and continue south towards ASCA 2. Based upon a review of the calculations provided in Appendix 7-9, the Division finds that a 6" fiber roll/berm will not be overtopped by a 10-year, 24-hour design storm event.

According to the Permittee, the berm depicted on the western edge of the surface facility is already constructed. As such, the fiber rolls would be the new controls that will need to be installed.

The Permittee must provide the following additional information/clarification in the amendment prior to final approval:

1) Provide typical cross-sections for both the berm and the fiber rolls as depicted on Plate 7-2. The cross-sections are necessary in order for Division Inspectors to evaluate whether they were installed correctly as well as determine if they are being adequately maintained over time.
2) Revise page 7-24 of the amendment with additional discussion/narrative as to the utilization of the berms within ASCA-1.
3) Revise the calculations in Appendix 7-9 for ASCA 2 with an "*area of elevation*" value of 5,508'. The submitted calculations call out an elevation of 5,908'.

Findings:

The amendment does not meet the Hydrologic Information requirements of the State of Utah R645 Coal Mining Rules. The following deficiency must be addressed prior to final approval:

R645-301-741, -742: The Permittee must provide the following additional information/clarification in the amendment prior to final approval:

4) Provide typical cross-sections for both the berm and the fiber rolls as depicted on Plate 7-2. The cross-sections are necessary in order for Division Inspectors to evaluate whether they were installed correctly as well as determine if they are being adequately maintained over time.
5) Revise page 7-24 of the amendment with additional discussion/narrative as to the utilization of the berms within ASCA-1.
6) Revise the calculations in Appendix 7-9 for ASCA 2 with an "*area of elevation*" value of 5,508'. The submitted calculations call out an elevation of 5,908'.

RECOMMENDATIONS:

The amendment should not be approved at this time.

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